PATENT

Application # 10/666,227

Attorney Docket # 2002P15657US01 (1009-040)

REMARKS

Applicant respectfully thanks the Examiner for the consideration provided to this application, and respectfully requests reconsideration of this application.

Claim 40 has been added.

Claims 1-40 are now pending in this application. Each of claims 1, 33, 34, and 40 are in independent form.

I. The Obviousness Rejections

Each of claims 1-39 was rejected under 35 U.S.C. 103(a) as being unpatentable over various combinations U.S. Patent Publication 2003/0184580 ("Kodosky") and/or U.S. Patent No. 5,870,559 ("Leshem"). This rejection is respectfully traversed.

A. Legal Standards

1. *Prima Facie* Criteria for an Obviousness Rejection

Over 40 years ago, in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), the Supreme Court established factors regarding the factual inquiry required to establish obviousness. The factors include:

　　　1. determining the scope and contents of the prior art;

　　　2. ascertaining differences between the prior art and the claims at issue;

　　　3. resolving the level of ordinary skill in the pertinent art; and

　　　4. considering objective evidence indicating obviousness or nonobviousness.

The Federal Circuit has applied *Graham's* required factual inquiry in numerous legal precedents that are binding on the USPTO.

It is recognized that most patentable inventions arise from a combination of old elements and often, each element is found in the prior art. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). The United States Supreme Court clarified the obviousness inquiry criteria in *KSR International Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745 (2007). The KSR Court held:

　　　1.　"[t]he question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art";

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2.   "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art";

3.   it is necessary "to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit"; and

4.   "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" (*quoting In re Kahn,* 441 F. 3d 977, 988 (Fed. Cir. 2006).

In order to establish a *prima facie* case of obviousness, certain criteria must be met. Evidence must be provided that indicates that the combination was obvious to a person with ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745 (2007); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The evidence must include an apparent reason, with a rational underpinning, to combine the known elements in the fashion claimed in the patent at issue. *KSR International Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745 (2007). There must be a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP 2143. In addition, the prior art reference (or references when combined) must teach... all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP 2143.

Moreover, the "Patent Office has the initial duty of supplying the factual basis for its rejection." *In re Warner*, 379 F.2d 1011, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057, *reh'g denied*, 390 U.S. 1000 (1968). "It may not... resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis". *Id.*

It is legal error to "substitute[] supposed *per se* rules for the particularized inquiry required by section 103. It necessarily produces erroneous results." *See, In re Ochiai*, 71 F.3d 1565, 1571, 37 USPQ2d 1127, 1132-33 (Fed. Cir. 1998); *In re Wright*, 343 F.2d 761, 769-770, 145 USPQ 182, 190 (CCPA 1965).

"Once the examiner... carries the burden of making out a *prima facie* case of unpatentability, 'the burden of coming forward with evidence or argument shifts to the applicant.'" *In re Alton*, 76 F.3d 1168, 37 USPQ2d 1578 (Fed. Cir. 1996) (*quoting In re Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444).

2. Claim Construction

Before the *prima facie* obviousness criteria can be applied, the words of each claim must be interpreted. The Federal Circuit, in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*), *cert. denied*, 546 U.S. 1170, 126 S.Ct. 1332, 164 L.Ed.2d 49 (2006) has clarified that:

1. "[t]he Patent and Trademark Office ('PTO') determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction **'in light of the specification as it would be interpreted by one of ordinary skill in the art'"** (*Id.* at 1316);

2. the words of a claim "are generally given their ordinary and customary meaning" (*Id.* at 1312);

3. the ordinary and customary meaning of a claim term is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application" (*Id.* at 1313);

4. "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but **in the context of the entire patent**, including the specification" (*Id.*);

5. even "the context in which a term is used in the asserted claim can be highly instructive" (*Id.* at 1314);

6. "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, **the inventor's lexicography governs**" (*Id.* at 1316);

7. even "when guidance is not provided in explicit definitional format, **the specification may define claim terms by implication** such that the meaning may be found in or

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ascertained by a reading of the patent documents" (*Id.* at 1321);

8. an "invention is construed not only in the light of the claims, but also with reference to the file wrapper or prosecution history in the Patent Office" (*Id.* at 1317 (*citing Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966))); and

9. the "prosecution history... consists of the complete record of the proceedings before the PTO and **includes the prior art cited** during the examination of the patent" (*Id.* at 1317).

The rules established in *Phillips* apply to *ex parte* examination in the USPTO. *See, In re Kumar*, 418 F.2d 1361 (Fed. Cir. 2005).

3. All Words in a Claim Must Be Considered

"To establish *prima facie* obviousness..., '[a]ll words in a claim must be considered'". MPEP 2143.03, *quoting In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); *see also, In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *In re Wilder*, 429 F.2d 447, 166 USPQ 545, 548 (CCPA 1970); *In re Angstadt*, 537 F.2d 498, 190 USPQ 214, 217 (CCPA 1976); *In re Geerdes*, 491 F.2d 1260, 180 USPQ 789, 791 (CCPA 1974).

4. Unfounded Assertions of Knowledge

A bald assertion of knowledge generally available to one of ordinary skill in the art to bridge the evidentiary gap is improper. Such unfounded assertions are not permissible substitutes for evidence. *See, In re Lee*, 277 F.3d 1338, 1435, 61 USPQ2d 1430, 1435 (Fed. Cir. 2002). That is, deficiencies of the cited references can not be remedied by general conclusions about what is basic knowledge or common sense to one of ordinary skill in the art. *In re Zurko*, 258 F.3d 1379, 1385-86 (Fed. Cir. 2001).

5. Lack of Evidence of Reasons for Combining References

Under the *Graham* analysis, the "examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." MPEP 2142. The requirements for meeting this burden are clear.

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To factually support a *prima facie* conclusion of obviousness, an Office Action must provide evidence that indicates that the combination was obvious to a person with ordinary skill in the art. The evidence must include an apparent reason, with a rational underpinning, to combine the known elements in the fashion claimed in the patent at issue. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" *KSR International Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745 (2007) (*quoting In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006).

B. Analysis

1. All Claims

a. Claim Construction

In the present Application, the meaning for the phrase "HMI screen node" is explicitly defined in the specification, at paragraph 16 to mean "a miniaturized visual representation of an HMI user screen."

The phrase "HMI user screen" is explicitly defined in the specification, at paragraph 11 to mean "a visual display of an HMI renderable via a monitor."

The phrase "HMI user screen" is explicitly defined in the specification, at paragraph 11 to mean "a visual display of an HMI renderable via a monitor."

The phrase "HMI" is explicitly defined in the specification, at paragraph 10 to mean "a human machine interface used for monitoring, programming, and/or controlling automation machines and/or processes. An HMI can, for example, interpret communications from a human operator of an industrial plant to an automated machine controller, and vice versa."

Each of these definitions must control examination of those claims that contain these phrases.

b. *Prima Facie* Criteria

None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a *prima facie* case of obviousness.

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c.   Missing Claim Limitations

Each of independent claims 1 and 33, from one of which each of claims 2-32 and 35-39 ultimately depends, states, *inter alia*, yet no substantial evidence is presented that the applied portions of Kodosky teach, "via the HMI screen navigation editor, enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes". Claim 34 states, *inter alia*, yet no substantial evidence is presented that the applied portions of Kodosky teach, "an HMI screen navigation editor operatively adapted to: enable a user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes". The present Office Action alleges, at Page 4, that Kodosky teaches "via the HMI screen navigation editor, enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes" at paragraphs 1 and 375.

Included herewith is a Declaration under 37 C.F.R. § 1.132 of Colleen Guy, an inventor of record of the present application and one skilled in the art of industrial computer applications engineering as of 24 March 2000, the priority date claimed by the present application. Paragraphs 12-25 of Ms. Guy's Declaration provide evidence that the applied portions of Kodosky do not teach, "via the HMI screen navigation editor, enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes", as claimed by each of claims 1 and 33.

Paragraphs 13-26 of Ms. Guy's Declaration provide evidence that the applied portions of Kodosky do not teach, "an HMI screen navigation editor operatively adapted to: enable a user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes", as claimed by claim 34.

Each of independent claims 1 and 33, from one of which each of claims 2-32 and 35-39 ultimately depends, states, *inter alia*, yet no substantial evidence is presented that the applied portions of Kodosky teach, "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child

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node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node".

Independent claim 34 of the present application states, *inter alia*, yet no substantial evidence is presented that the applied portions of Kodosky teach, "an HMI screen navigation editor operatively adapted to: responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjust a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node".

The Office Action asserts, at Page 4, that Kodosky at paragraph 185 teaches "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node ('...The 'drag and drop' method may comprise the user selecting the first program icon with a pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon....,' para. [0185]) automatically adjusting a nodes position ('...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....,' para. [0016])."

Paragraphs 27-39 of Ms. Guy's Declaration provide evidence that the applied portions of Kodosky and/or Leshem do not teach, "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node", as claimed by each of claims 1 and 33.

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Paragraphs 28-40 of Ms. Guy's Declaration provide evidence that the applied portions of Kodosky and/or Leshem do not teach, "an HMI screen navigation editor operatively adapted to: responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjust a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node", as claimed by claim 34.

The remaining applied portions of the relied-upon references do not overcome at least these deficiencies of Kodosky and/or Leshem.

Thus, the present Office Action presents no substantial evidence that the applied portions of the relied-upon references teach, "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node" as claimed in each of claims 1 and 33.

The present Office Action presents no substantial evidence that the applied portions of the relied-upon references teach, "an HMI screen navigation editor operatively adapted to: responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjust a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node" as claimed in claim 34.

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Thus, even if there were proper evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, **as attempted to be modified and/or combined,** expressly or inherently teach **every** limitation of the independent claims, and consequently the Office Action fails to establish a *prima facie* case of obviousness. Consequently, for at least the reasons mentioned above, reconsideration and withdrawal of these rejections is respectfully requested.

d. Lack of Required Factual Evidence of Obviousness

Applicant respectfully notes that the present Office Action fails to evidence the scope and contents of the prior art as required under *Graham.* The present Office Action fails to even identify what "the pertinent art" is. Moreover, the present Office Action fails to evidence the level of ordinary skill in the pertinent art.

Applicant respectfully traverses the failure of the present Office Action to comply with the requirements of *Graham* and thereby, to provide a *prima facie* rejection under 35 U.S.C. 103.

e. Conclusion

For at least these reasons, reconsideration and withdrawal of each rejection of each of claims 1, 33, and 34 is respectfully requested. Also, reconsideration and withdrawal of each rejection of each of claims 2-32 and 35-39, each ultimately depending from claim 1 is also respectfully requested.

II. New Claim 40

Claim 40 states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the relied-upon references teach, "said HMI screen navigation editor adapted to, responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a child node of a plurality of child nodes of said parent node,

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automatically recursively adjust a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node". For at least these reasons, a Notice of Allowance regarding claim 40 is earnestly solicited
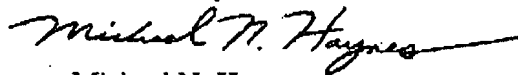
CONCLUSION

It is respectfully submitted that, in view of the foregoing amendments and remarks, the application as amended is in clear condition for allowance. Reconsideration, withdrawal of all grounds of rejection, and issuance of a Notice of Allowance are earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account No. 50-2504. The Examiner is invited to contact the undersigned at 434-972-9988 to discuss any matter regarding this application.

Respectfully submitted,

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Date: 30 October 2007

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